



TotalAlert Infinity™ Medical Gas Notification System

SPECIFICATION

Medical Gas Notification System

The TotalAlert Infinity™ medical gas notification system provides central and area alarm signals as required by the latest edition of HTM02-01. The medical gas notification system shall fully comply with the requirements of HTM 02-01, BS EN 60601-1-2 and BS EN ISO 7396-1.

The Right Instruction

The medical gas notification system shall allow:

- Set up customised instructions for each alarm signal, to appear on the screen when the signal is in alarm.
- Create custom instructions with the touch screen interface on the alarm panel LCD.
- Incorporate user-defined instructions into an emergency response plan by the facility.

Panel Functionality

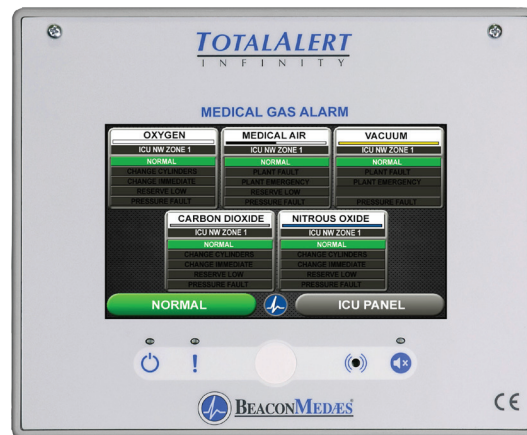
- Central, Zone, and Combination medical gas notification systems shall have an 8" touch screen LCD display.
- Configuration of the medical gas notification system shall be done via build-in touch-screen Human-Machine Interface (HMI), no additional tools shall be required.
- Duplication (cloning) of the configuration should be foreseen e.g. by using removable memory board. Remote Ethernet monitoring and secured configuration shall be foreseen without additional software.
- A Green NORMAL condition on the home screen shows that there are no alarms active.
- The home page includes a location/area served badge for the alarm panel, customisable with the keyboard feature of the touch screen during the set up process.
- LCD display contains an adjustable background with many colour/brightness options.
- LCD display backlight includes a "sleep mode" option via motion sensor to preserve screen life, adjustable from 5 to 60 minutes. By default, the alarm sleep mode option is not active and the backlight remains on all of the time. If option is active and an alarm occurs during "sleep mode", the backlight turns on and remains on during the alarm condition.
- A full diagnostic self-test of the alarm tests the alarm signals (Green, Yellow, and Red), the LED indicators on the front panel, the audible horn, and displays all of the alarm set points. Initiate test with the touchscreen controls.

Antimicrobial Additive

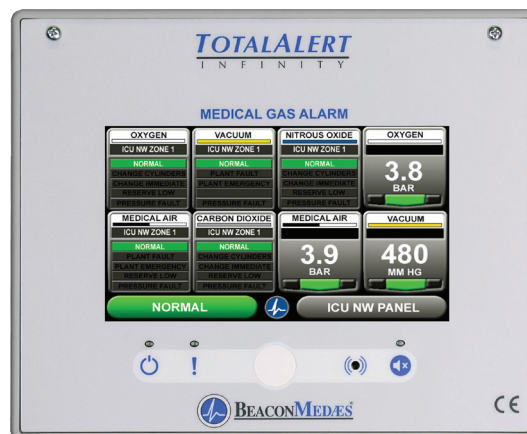
User accessible overlay material on the front panel shall include a silver antimicrobial additive for inherent antimicrobial protection. Efficiency of the additive according to ISO 22196 shall be >99% for sample of species such as E coli and MRSA.

Ethernet Connectivity with Embedded Web Page

- A built-in web server in each panel allows a remote operator to display the alarm's web page and view alarm signals, pressures, and other networked devices.
- Ethernet communication is compatible with BeaconMedaes TotalAlert Embedded source equipment, TotalAlert Embedded manifolds, and TotalAlert alarm panels.
- The panel's web page contains links to all other TotalAlert devices on



Central Alarm Panel
(up to 20 BeaconMedaes Line Contact Monitoring signals.)



Combination alarm can monitor up to 20 BeaconMedaes Line Contact Monitoring signals and up to 6 digital gas sensors.



Zone Alarm Panel (up to 8 gases)



the network, including other alarm panels and source equipment.

- Electronic notification is available through e-mail/text messaging.
- Accessible through any SMTP gateway.
- Allows for remote alerts of alarm conditions.

History Log

- Event log accessible on LCD display records all alarms and panel activity, displays most recent 100 events.
- Event log is downloadable through embedded web page, including most recent 1000 events.

Mirroring

- Capture and display (mirror) digital readings (pressure/vacuum levels) and plant signals from other TotalAlert Infinity™ alarm panels via Ethernet.
- Customise alarm instructions on mirrored pressures and signals, enabling unique instructions at each panel.

4-20mA Option

- Set up any 2 or 3 wire 4-20mA transducer with user-defined values.
- Customise badges through the touchscreen interface to display the 4-20mA readings, including color, identification, location, value settings, and alarm set points (high and low).
- Each 4-20mA monitored condition shows a separate green display when NORMAL and a red display when in ALARM.

BACnet

- Utilize the built-in Ethernet connection for BACnet transmission of signals to a Building Automation System.
- TotalAlert Infinity™ alarms employ the TCP/IP family of protocols for communication and each device has a unique IP address.
- Each TotalAlert Infinity™ alarm panel conforms to the BACnet protocol and includes a Protocol Implementation Conformance Statement (PICS).

Wireless

- WiFi 802.11 b/g/n interface provides access with any web enabled device to panel web page and retrieve operating information and event history.

Power

- Input power to the alarm panel is 100 to 250 VAC 50/60 Hz, fused on the input side rated at 250mA, time-delayed.
- The internal power supply converts the input voltage to low voltage 24 VDC.
- All user accessible electronics and wiring utilise low voltage.
- Plastic guard protects user from high voltage wiring.

Transport & Storage

During transport and storage, do not exceed an ambient temperature range of 0°C to 40°C, a relative humidity range of 10% to 85% with non-condensation, and an atmospheric pressure range of 950 hPa (millibar) to 1050 hPa (millibar).

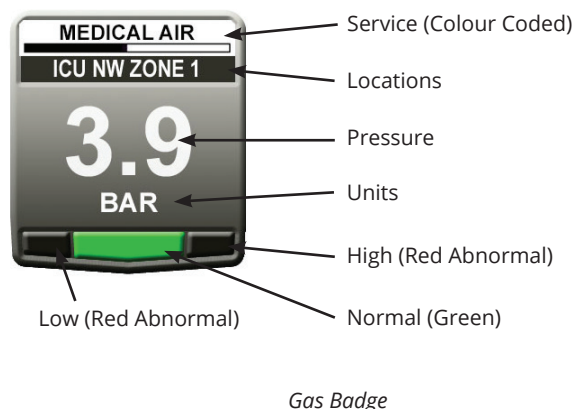
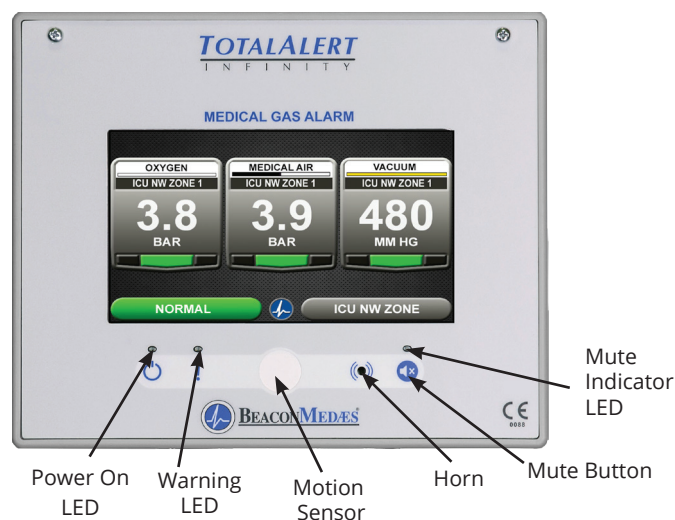
CE Marking

The standard range of BeaconMedaes TotalAlert Infinity™ Medical Gas Alarms are 'CE' marked under the Medical Devices Directive 93/42/EEC. Under this directive, the specified products are classified as a Class I Medical Device.

Front Panel Indicators

- Green POWER ON LED indicator illuminates when the alarm panel is powered.

- WARNING LED alerts the user to warnings and communication issues which are not alarm causing conditions.
- Audible SPEAKER produces a minimum sound pressure of 58 dBA at a distance of 1m.
- MUTE button indicator LED flashes red during an alarm condition and remains illuminated as a constant red after silencing until the fault is corrected.



Gas Badge

Zone Alarm Digital Sensor

- All field wiring and signals are self-monitoring and the alarm differentiates between good and bad signals, open circuit (fault), and a short circuit (fault).



- Gas specific digital gas sensor contains a transducer capable of providing factory calibrated signals to the alarm panel.
- Remotely installed sensors may be located up to 1,524 m (5,000 feet) from the alarm panel.
- Pipeline connections are 1/4" BSPP threaded connection with sealing washer.
- Digital gas sensors include a "heartbeat" flashing green LED light to designate that sensor is functioning correctly.

Zone Alarm Panel Configuration

- Zone alarm panel monitors 1 to 8 digital gas sensor modules, installed remotely.
- Display screen continuously displays the monitored gas pressures or vacuum in the piping system.
- Customise gas badges on the display for gas types, colour, and language. Type in areas served per gas during set up process through the touchscreen interface.
- Program the units of measure for each gas badge to read PSI, BAR, and kPa in increments of 1 PSI, 0.1 BAR, and to 10 kPa respectively.
- Visual indicators for system pressure or vacuum are NORMAL (Green) and individual indicators (Red) for alarm fault condition such as LOW or HIGH pressure.
- Low and high alarm points are factory set per HTM standards, but remain field programmable through touch screen interface.
- The Zone Alarm panel contains a general fault relay for the entire panel or add an optional relay board to provide the pressure fault status for each gas.

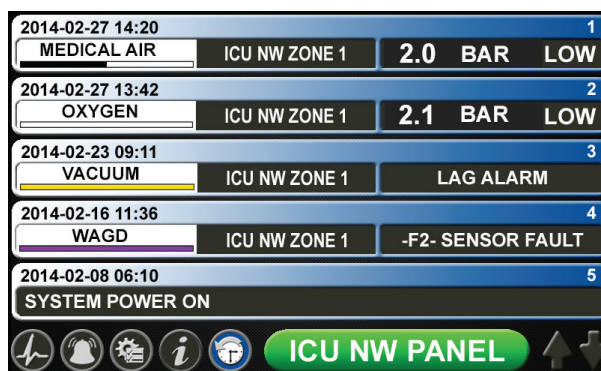
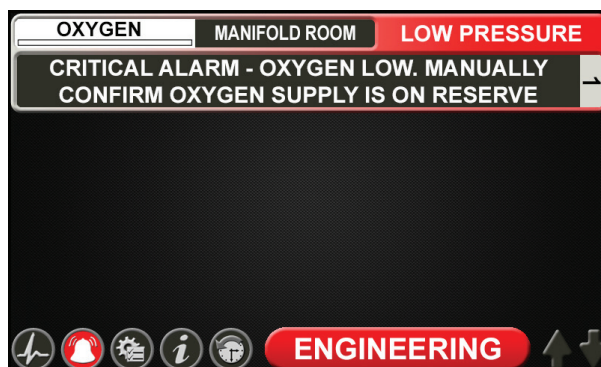
Central Alarm

- Central Alarm panel monitors up to 5 medical gas source equipment wired locally with 20 line contact monitor signals (four signals per piece of source equipment).
- Each gas service badge shown on the touchscreen shall consist of a bank of five indicators, one green (for a "Normal" indication) and three yellow and one red (for four input conditions) as standard, although panels shall be customizable for individual requirements. The display shall show a maximum of 6 badges, each configurable for a locally wired medical gas source equipment, another central alarm on the Medipoint or Shire communication network, or an Ethernet connected TotalAlert infinity alarm panel (maximum of 24 signals displayed).
- Compatible with both Shire and Medipoint networks to communicate to legacy panels.
- During a fault condition, the visual green NORMAL display turns off, the location icon flashes red, the active alarm icon flashes red, and the audible alarm sounds. The signal also flashes red or yellow depending on the condition (per HTM code) until acknowledged from a central alarm panel.
- Optional relay boards provide up to 32 dry contacts normally closed relays for connection to a building automation system. Relay ratings are 30 VAC/VDC 3A max.

Combination Alarm

- Alarm panels monitor a combination of line contact monitor signals, and either digital gas sensor modules or 4-20mA transducers.
- Alarm panel is capable of monitoring up to 20 normally closed dry contact switch signals wired locally and up to 7 digital gas sensors.

Source alarm signal with custom, alarm specific instruction



Alarm history, stores 100 events on the panel, with 1000 events downloadable from web page

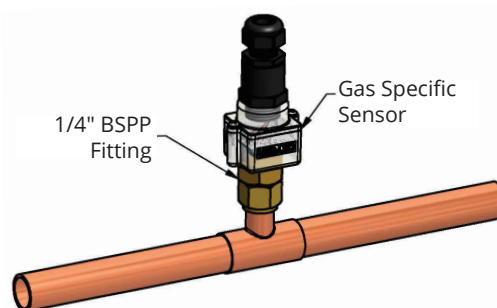
Embedded Web Page, allows for full management of medical gas system through any web enabled device on the network



TotalAlert Infinity™ Alarm Models

Product number	Description	Input and Outputs
4107221952	A3-B00 BLANK ALARM	0 Inputs, 0 Outputs
4107221953	A3-M01 MASTER ALARM	0 Inputs, 16 Outputs
4107221954	A3-M02 MASTER ALARM	0 Inputs, 32 Outputs
4107221955	A3-M10 MASTER ALARM	20 Inputs
4107221956	A3-M11 MASTER ALARM	20 Inputs, 16 Outputs
4107221957	A3-A10 AREA ALARM	8 Digital gas inputs
4107221958	A3-C10 COMBO ALARM	20 Inputs, 8 Digital gas inputs
4107221959	A3-C40 COMBO ALARM	4 Inputs 4-20mA
4107221960	A3-B00-R BLANK ALARM. RETROFIT	0 Inputs, 0 Outputs
4107221961	A3-M01-R MASTER ALARM. RETROFIT	0 Inputs, 16 Outputs
4107221963	A3-M10-R MASTER ALARM. RETROFIT	20 Inputs
4107221965	A3-A10-R AREA ALARM. RETROFIT	8 Digital gas inputs
4107221967	A3-C40-R COMBO ALARM. RETROFIT	4 Inputs 4-20mA

Product number	Description
4107213125	SENSOR ASM O2 HTM
4107213126	SENSOR ASM N2O HTM
4107213127	SENSOR ASM O2-N2O HTM
4107213128	SENSOR ASM MED AIR HTM
4107213129	SENSOR ASM LAB AIR HTM
4107213130	SENSOR ASM CO2 HTM
4107213131	SENSOR ASM HE-O2 HTM
4107213132	SENSOR ASM MED VAC HTM
4107213133	SENSOR ASM LAB VAC HTM
4107213134	SENSOR ASM SURGICAL AIR HTM
4107213135	SENSOR ASM N2 HTM



Total Alert Infinity™ Zone Alarm Gas Sensor Installation

Example: Required Central Alarm to monitor Medical Air & Vacuum plant and one Oxygen Manifold.

Example Model Numbers:

Product number	Description	Details
4107221955	A3-M10 MASTER ALARM	20 Inputs

Example: Required Local Alarm to monitor gases: Oxygen, MA4, SA7 and VAC.

Example Model Numbers:

Product number	Description	Quantity
4107221957	A3-A10 AREA ALARM	1
4107213125	SENSOR ASM O2 HTM	1
4107213128	SENSOR ASM MED AIR HTM	1
4107213134	SENSOR ASM SURGICAL AIR HTM	1
4107213132	SENSOR ASM MED VAC HTM	1



BEACONMEDÆS®

Part of the Atlas Copco Group

In an effort to continuously improve our products, the right is reserved to change the specification of the items described herein at any time. Please contact us for further information and up to date specifications.

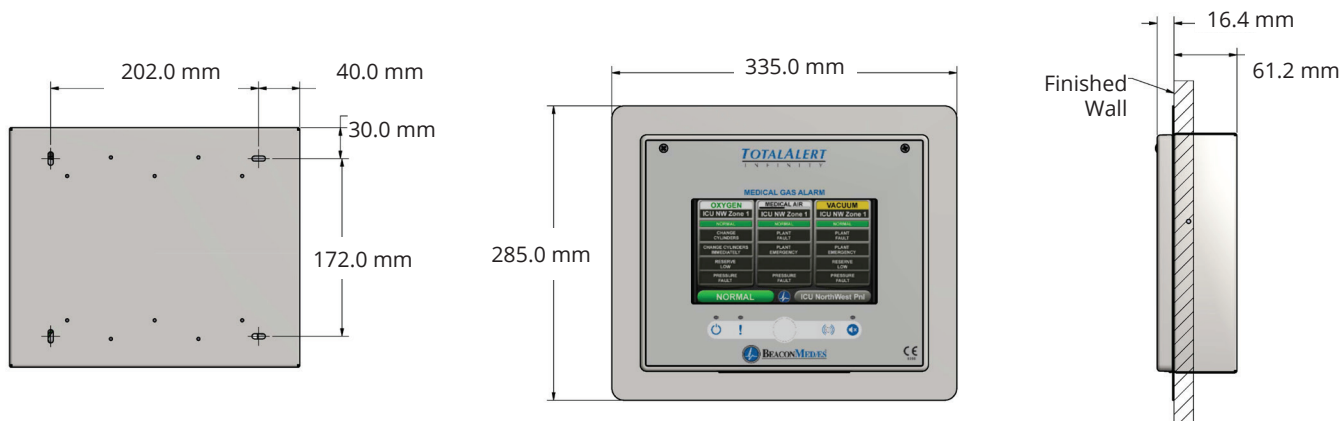
4107951155.01

2212020128

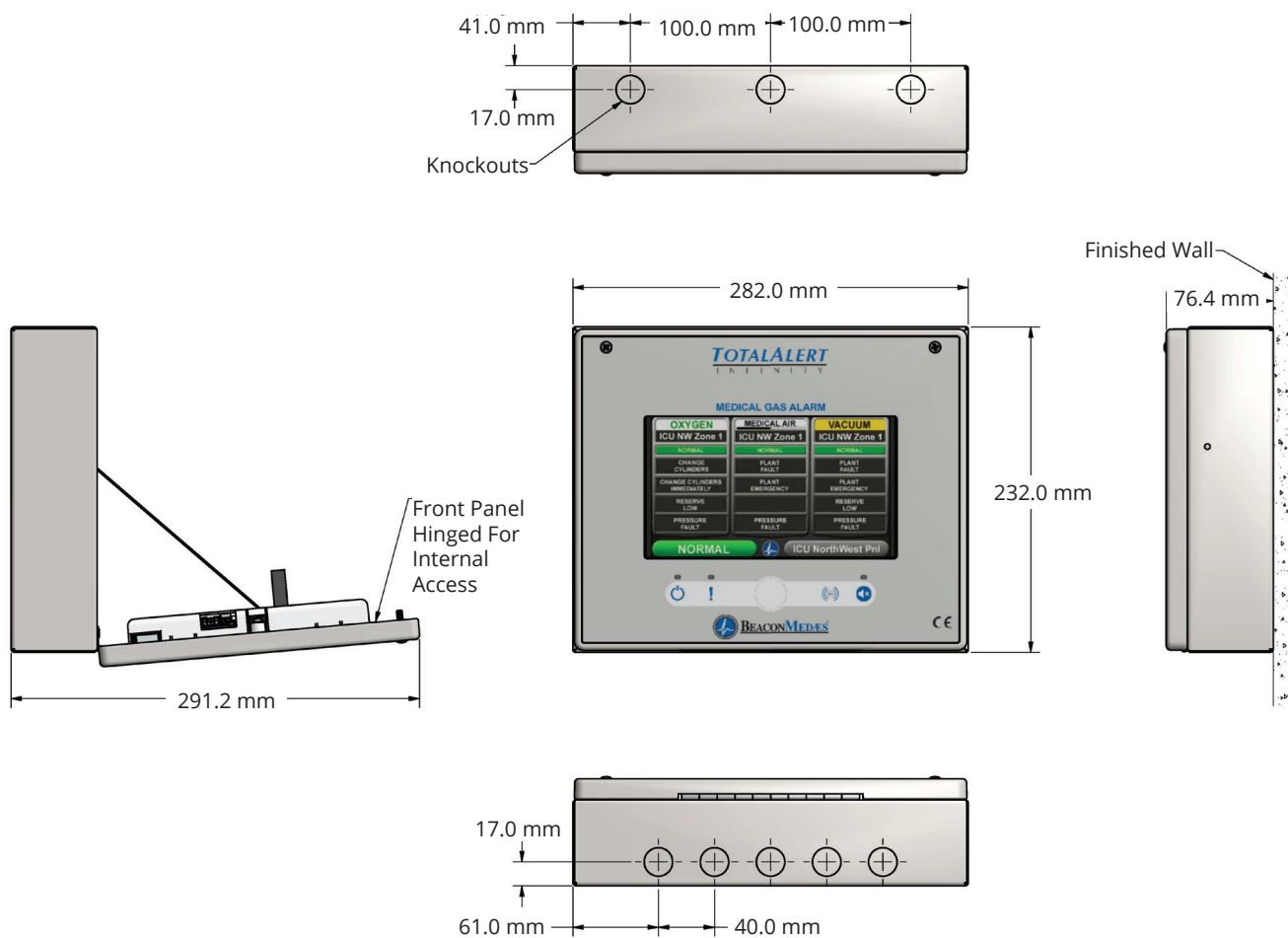
08/10/17

Page 5 of 5

TotalAlert Infinity™ Alarm Dimensions



Concealed Installation Dimensions



Surface Installation Dimensions

Patent Pending

© BeaconMedaes 22-07-16

BeaconMedaes
Telford Crescent,
Staveley, Derbyshire
S43 3PF, England
Tel: +44 (0) 1246 474 242
Fax: +44 (0) 1246 472 982
www.beaconmedaes.com
E-mail: gbn.info@beaconmedaes.com

